

WHAT IS CLAIMED IS:

1. A computer implemented method for provisioning Broadband service in a Point-to-Point Protocol over Ethernet (PPPoE) network, comprising:
 - establishing a Plain Old Telephone System (POTS) connection between a Broadband modem and a remote server;
 - receiving from said remote server via said POTS connection using Dual-Tone Multi-Frequency (DTMF) tones, a domain name associated with a Broadband Service Node (BSN); and
 - establishing a PPPoE session using said domain name.
2. The method of claim 1, wherein said establishing step comprises authenticating said Broadband modem for said PPPoE session.
3. The method of claim 1, wherein said establishing step comprises:
 - transmitting a request for configuration details from said Broadband modem to said BSN having said domain name, where said request is transmitted over a PPPoE network; and
 - receiving configuration details from said configuration server.
4. The method of claim 1, further comprising, prior to said receiving step, the step of transmitting a configuration request from said Broadband modem to said remote server using DTMF tones.
5. The method of claim 1, wherein said receiving comprises further acquiring from said remote server via said POTS connection using DTMF tones, a user identifier.
6. The method of claim 5, wherein said establishing comprises transmitting said user identifier as a username to establish said PPPoE session.

- 1 7. The method of claim 5, wherein said user identifier is a telephone number of
2 associated with a twisted pair through which said Broadband modem
3 established said POTS connection.
- 1 8. The method of claim 5, wherein said transmitting further comprises sending
2 said request, where said request contains said user identifier.
- 1 9. The method of claim 1, wherein said receiving step comprises acquiring
2 configuration details unique to said Broadband modem.
- 1 10. The method of claim 1, further comprising automatically configuring said
2 Broadband modem with said configuration details.
- 1 11. The method of claim 1, wherein said configuration details include a dynamic
2 Internet Protocol (IP) address.
- 1 12. The method of claim 1, further comprising:
2 transmitting a request for full configuration details to a configuration
3 server over said PPPoE network, where said request for full configuration
4 details contains a user identifier;
5 receiving full configuration details from said configuration server; and
6 automatically configuring said Broadband modem with said full
7 configuration details.
- 1 13. The method of claim 12, wherein said full configuration details include a static
2 IP address.
- 1 14. The method of claim 1, further comprising, prior to said establishing step, the
2 step of detecting a POTS dial-tone.

1 15. A computer implemented method for provisioning Broadband service in a
2 Point-to-Point Protocol over Ethernet (PPPoE) network, comprising:
3 establishing a Plain Old Telephone System (POTS) connection between
4 a Broadband modem and a remote server;
5 receiving from said remote server via said POTS connection using
6 Dual-Tone Multi-Frequency (DTMF) tones, a domain name associated with a
7 Broadband Service Node (BSN);
8 transmitting a request for configuration details from said Broadband
9 modem to said BSN having said domain name, where said request is
10 transmitted over a PPPoE network;
11 receiving configuration details from said configuration server;
12 configuring said Broadband modem using at least part of said
13 configuration details; and
14 transmitting at least part of said configuration details to a client
15 computer coupled to said Broadband modem to enable said client computer to
16 configure itself.

1 16. A computer implemented method for provisioning Broadband service in a
2 Point-to-Point Protocol over Ethernet (PPPoE) network, comprising:
3 answering at a remote server a Plain Old Telephone System (POTS)
4 call placed from a Broadband modem to said remote server;
5 determining a telephone number from which said POTS call was placed
6 by said Broadband modem;
7 looking-up a domain name of a Broadband Service Node (BSN)
8 associated with said telephone number;
9 transmitting said domain name and said telephone number to said
10 Broadband modem using Dual-Tone Multi-Frequency (DTMF) tones.

1 17. The method of claim 16, wherein said determining step uses Automatic
2 Number Identification (ANI) to determine said telephone number.

1 18. The method of claim 16, further comprising, prior to said determining step, the
2 step of receiving a configuration request from said Broadband modem, where
3 said request is transmitted using DTMF tones.

1 19. A system for provisioning broadband service in a Point-to-Point Protocol Over
2 Ethernet (PPPoE) network, comprising:

3 a least one client computer;

4 a remote server coupled to a Public Switched Telephone Network
5 (PSTN) and configured to communicate using DTMF tones;

6 a Broadband modem coupled to said client computer and said PSTN,
7 said Broadband modem including a memory comprising:

8 instructions for establishing a Plain Old Telephone System
9 (POTS) connection over said PSTN between said Broadband
10 modem and said remote server;

11 instructions for receiving from said remote server via said
12 POTS connection using Dual-Tone Multi-Frequency (DTMF)
13 tones, a domain name associated with a Broadband Service
14 Node (BSN);

15 instructions for transmitting a request for configuration
16 details from said Broadband modem to said BSN having said
17 domain name, where said request is transmitted over a PPPoE
18 network; and

19 instructions for receiving configuration details from said
20 configuration server.

1 20. The system of claim 19, further comprising:

2 a Digital Subscriber Line Access Multiplexor (DSLAM) coupled between
3 said Broadband modem and said BSN;

4 an Asynchronous Transfer Mode (ATM) network coupled between said
5 DSLAM and said BSN; and

6 a Broadband Remote Access Server (BRAS) coupled between said
7 ATM network and said single configuration BSN.

1 21. The system of claim 19, further comprising:

2 multiple Broadband Service Nodes (BSNs) coupled to said modem,
3 where each of said BSNs is associated with a different domain name; and
4 an authentication server coupled to each one of said multiple BSNs.

1 22. The system of claim 21, wherein said multiple BSNs are coupled to the
2 Internet.

1 23. The system of claim 19, further comprising a POTS switch coupled between
2 said Broadband modem and said PSTN.

1 24. A computer program product for use in conjunction with a computer system for
2 provisioning broadband service in a Point-to-Point Protocol Over Ethernet
3 (PPPoE) network, the computer program product comprising a computer
4 readable storage and a computer program stored therein, the computer
5 program comprising:

6 instructions for establishing a Plain Old Telephone System
7 (POTS) connection between a Broadband modem and a remote server;
8 instructions for receiving from said remote server via said POTS
9 connection using Dual-Tone Multi-Frequency (DTMF) tones, a domain
10 name associated with a Broadband Service Node (BSN);

11 instructions for transmitting a request for configuration details
12 from said Broadband modem to said BSN having said domain name,
13 where said request is transmitted over a PPPoE network; and

14 instructions for receiving configuration details from said
15 configuration server.